

IN THE CLAIMS

Please cancel claims 1-7 and add new claims 8-22.

8. A common rail injector for injecting fuel in a common rail injection system of an internal combustion engine, comprising an injector housing (1), which communicates with a central high-pressure reservoir and in which a nozzle needle is axially displaceable in order to adjust the injection as a function of the pressure in a control chamber, and a sealing element (6), which is disposed in an annular chamber (3) that is provided between a valve element (2) and the injector housing (1), and in addition to the sealing element (6), a support device (7) is disposed in the annular chamber (3) between the valve element (2) and the injector housing (1).
9. The common rail injector of claim 8, wherein the support device is formed by an annular support disk (7), in particular comprising a metal material.
10. The common rail injector of claim 9, wherein the support disk (7) is embodied as slightly conical on its inner circumference.
11. The common rail injector of claim 10, wherein the slightly conically embodied inner circumference of the support disk (7) narrows toward the sealing element (6) or away from the sealing element (6).
12. The common rail injector of claim 9, wherein the support disk (7) is embodied slightly conically on its inner and outer circumference.

13. The common rail injector of claim 8, wherein leakage grooves (8, 9, 10, 11) are embodied in the support device (7).

14. The common rail injector of claim 9, wherein leakage grooves (8, 9, 10, 11) are embodied in the support device (7).

15. The common rail injector of claim 10, wherein leakage grooves (8, 9, 10, 11) are embodied in the support device (7).

16. The common rail injector of claim 11, wherein leakage grooves (8, 9, 10, 11) are embodied in the support device (7).

17. The common rail injector of claim 12, wherein leakage grooves (8, 9, 10, 11) are embodied in the support device (7).

18. The common rail injector of claim 13, wherein the leakage grooves (8, 9, 10, 11) are provided on the side of the support device (7) remote from the sealing element (6).

19. The common rail injector of claim 14, wherein the leakage grooves (8, 9, 10, 11) are provided on the side of the support device (7) remote from the sealing element (6).

20. The common rail injector of claim 15, wherein the leakage grooves (8, 9, 10, 11) are provided on the side of the support device (7) remote from the sealing element (6).

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21. The common rail injector of claim 16, wherein the leakage grooves (8, 9, 10, 11) are provided on the side of the support device (7) remote from the sealing element (6).

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22. The common rail injector of claim 17, wherein the leakage grooves (8, 9, 10, 11) are provided on the side of the support device (7) remote from the sealing element (6).
